

ABSTRACT OF THE DISCLOSURE

An engine includes a crankshaft, rotating about a crankshaft axis of the engine. A power piston is slidably received within a first cylinder and is operatively connected to the crankshaft via first linkage system. The power piston reciprocates through a power stroke and an exhaust stroke of a four stroke cycle during a single rotation of the crankshaft. A compression piston is slidably received within a second cylinder and operatively connected to the crankshaft via second linkage system. The first and second linkage systems share no common mechanical link. The compression piston reciprocates through an intake stroke and a compression stroke of the same four stroke cycle during the same revolution of the crankshaft. The power piston leads the compression piston by a phase shift angle that is substantially equal to or greater than zero degrees and less than 30 degrees.